

## ABSTRACT

## ARRAYS AND METHODS OF USE

Methods are provided for producing a molecular array comprising a plurality of molecules immobilised to a solid substrate at a density which allows individual immobilised molecules to be individually resolved, wherein each individual molecule in the array is spatially addressable and the identity of each molecule is known or determined prior to immobilisation. The use of spatially addressable low density molecular arrays in single molecule detection and analysis techniques is also provided. Novel assays and methods are also provided.